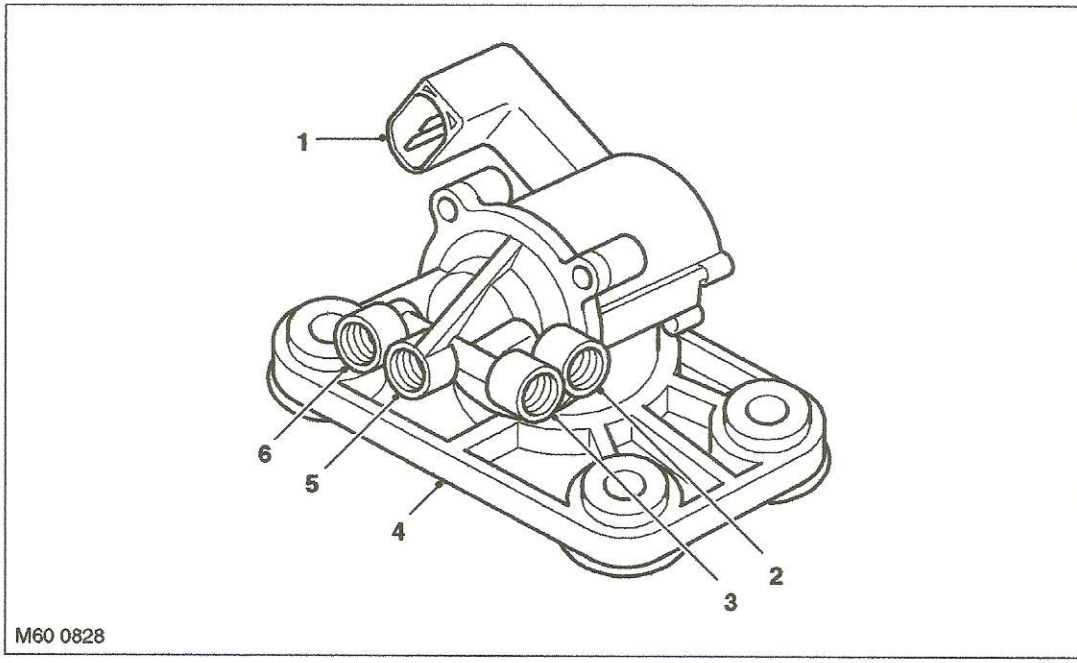
Cross Link Valves



1 Electrical connector
2 RH air spring supply/return
3 RH air spring supply/return from valve block
4 Cross link valve body
5 LH air spring supply/return
6 LH air spring supply/return from valve block

The cross-link valves are located at the rear of the front RH wheel arch, behind the liner for the front valve and at the top of the rear RH wheel arch, behind the liner for the rear valve. The valves are attached to the body by three fixing and are rubber mounted to isolate solenoid noise.

The cross-link valves comprise a single large solenoid valve with connections to the LH and RH air springs and also connections for each air spring from the reservoir mounted valve block. The solenoid operated valve is controlled by the air suspension ECU. When the solenoid is energised, the cross-link valve connects the two air springs together, allowing air to flow between them if required. This provides additional articulation of the suspension improving the off-road capabilities of the vehicle and an improvement in low speed ride comfort.

The air suspension ECU senses that the vehicle is off-road by comparing rapid changes in signals from the height sensors. The operation of the cross-link valves is fully automatic, requiring no driver intervention.

The cross link valves are only operated at vehicle speeds of 12.5 mph (20 km/h) and below. At vehicle speeds above 12.5 mph (20 km/h), the cross link valves remain closed.